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Attorney's Docket No.: 13506-018001

Applicant : David R. Maas et al.  
Serial No. : 10/775,538  
Filed : February 10, 2004  
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**Amendments to the Claims:**

This listing of claims replaces all prior versions and listings of claims in the application:

1. (Currently amended) A soil aerator tine comprising:

an elongated arcuate member having a concave surface and a substantially complimentary and opposed convex surface, the arcuate member being operable to fracture soil and form an aeration pocket; and

an aeration tube coupled to the arcuate member at one of said convex surface or said concave surface, the aeration tube being operable to remove a soil plug as the blade portion fractures soil and forms an aeration pocket.

2. (Original) The device of claim 1, wherein the aeration tube includes a cutting edge

3. (Original) The device of claim 1, wherein at least one of the concave and convex surfaces include an edge adapted to fracture soil.

4. (Currently amended) The device of claim 1, wherein the concave surface ~~and the~~ and the convex surface converge near a tip portion.

5. (Original) The device of claim 4, wherein the aeration tube is spaced apart from the tip portion.

6. (Original) The device of claim 1, wherein the aeration tube is coupled to the convex surface.

7. (Original) The device of claim 6, wherein aeration tube has a central axis that is substantially parallel to a tangent of the convex surface proximate the aeration tube.

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8. (Original) The device of claim 1, further comprising a mounting structure positioned at a proximal portion of the elongated member, the mounting structure being operable to releasably connect the elongated member to a soil aeration assembly.

9. (Original) The device claim 8, wherein the mounting structure is a cavity formed in the proximal portion of the elongated member, the cavity being receivable onto a mounting element of a tine-holder member.

10. (Currently amended) A soil aeration tine, comprising:

a means for fracturing soil and for drawing the aeration tine into said soil, said means including a curved elongate member; and

a means for removing a soil plug, said plug removal means being coupled to the soil fracturing means.

11. (Original) The soil aeration tine of claim 10, wherein the plug removal means is operable to cut a soil plug while the soil fracturing means fractures soil to form an aeration pocket.

12. (Original) The soil aeration tine of claim 10, wherein the fracturing and drawing means includes concave and convex edges adapted to fracture soil.

13. (Original) The soil aeration tine of claim 10, further comprising a mounting means positioned distal the tip portion.

14. (Original) The soil aeration tine of claim 13, wherein the mounting means is operable to releasably connect the aeration tine to a rack.

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15. (Currently amended) A method of forming an aeration pocket, comprising:  
penetrating a patch of soil with a tip portion of an elongated arcuate aeration tine having a knife portion and an aeration tube coupled to the knife portion and spaced apart from the tip portion;  
fracturing the soil with the knife portion; and  
removing a soil plug with the aeration tube;  
whereby a fractured soil pocket is formed, said pocket having a horizontal length significantly greater than the diameter of said soil plug.
16. (Original) The method of claim 15, wherein the knife portion includes a convex edge and a complimentary concave edge, the concave and convex edges converging near the tip portion.
17. (Original) The method of claim 16, wherein the concave edge comprises a leading edge of the knife portion as the soil is penetrated.
18. (Currently amended) The method of claim 15, wherein the step of penetrating with the arcuate tine ~~portion~~ draws the aeration tine downward into the soil.